MAKAROV, Vladimir Ivanovich kandidat tekhnicheskikh nauk; FEYNBERE, G.M., inzhener, nauchnyy redaktor; BURMISTROV, G.N., redaktor; KUZ'MIN, D.G., tekhnicheskiy redaktor

[Operator of road machinery] Motorist dorozhnykh mashin. Moskva, Vses.uchebno-pedagog. izd-vo Trudrezervizdat, 1956. 351 p.
(Road machinery) (MLRA 10:2)

BOGUSHEVSKIY, A.A., kand.tekhn.nauk, GALYAMIN, Ye.P., inzh.,
ZENCHENKO, A.A., inzh., MAKAROV, V.I., inzh.

Land reclamation for agricultural use in the Yakut A.S.S.R. Gidr.
i mel. 12 no.8:3-9 Ag '60. (MIRA 13:8)
(Yakutia--Irrigation) (Yakutia--Drainage)

MAKAROV, Vladimir Genadiyevich; ASTASHKEVICHER, Ye.T., ekonomist, retsenzent; BOCHAROV, G.G., ekonomist, red.; TKACHUN, A.I., red. izd-va; MODEL', B.I., tekhn. red.

[Accounting theory; accounting principles in industry] Teoriia bukhgalterskogo ucheta; osnovy teorii bukhgalterskogo ucheta v promyshlennosti. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1960. 159 p. (MIRA 14:9)

(Accounting)

MAKAROV, V.G.

Combined flowsheet for the production of forgings. Kuz.-shtam. proizv. 3 no.7:44-46 Jl '61. (MIRA 14:6)
(Forging) (Industrial organization)

MAKAROV, V.G.

Forging of duralumin pistons. Kuz.-shtam. proizv. 3 no.1:47-48 Ja '61. (MIRA 14:1)
(Forging) (Duralumin)

MAKAROV, V.G.; FINKEL', S.M.; SHESTAKOV, K.T.; STARCHAKOVA, I.I., red.; KISELEVA, A.A., tekhn.red.

[Accounting in state commerce] Bukhgalterskii uchet v gosudarstvennoi torgovle. Moskva, Gos.izd-vo torg.lit-ry, 1960. 252 p. (MIRA 14:3)

(Accounting)

VASIL'YEV, Yu.V.; MAKAROV, V.G.; POGODOV, Zu.L.

Methods of manufacturing laboratory apparatus and equipment of polyethylene. Zav.lab. 28 no.4:507-508 '62. (MIRA 15:5)

1. Moskovskiy tekstil'nyy institut i Institut khimii polimerov AN UzSSR.

(Laboratories--Equipment and supplies)
(Polyethylene)

FROLOV, I.A.; MAKAROV, V.G., elektromekhanik

Magnetic recording head polishing device. Avtom., telem. i sviaz' 2 no.3:23-24 Mr '58. (MIRA 13:1)

1.Starshiy elektromekhanik Moskovskoy distantsii signalizatsii i svyazi Moskovsko-Kursko-Donbasskoy dorogi (for Frolov).
(Magnetic recorders and recording)

MAKAROV, V.G.; RUDENCHIK, A.A.

Enlarged work teams for track sections. Put' i put. khoz. no.7: 18-19 Jl '57. (MLRA 10:8)

1. Nachal'nik Vspol'inskoy distantsii, stantsiya Vspol'ye (for Makarov). 2. Zamestitel' nachal'nika Vspol'inskoy distantsii, st. Vspol'ye (for Rudenchik).
(Railroads--Management)

MAKAROV, V. G., Cand Agr Sci -- "Socialist agriculture transformation of the Komi ASSR far north.) (Cattle breeding, reindeer breeding, and wild-animal breeding on Izma)." Mos, 1961. (All-Union Agr Inst of Correspond Ed) (KL, 8-61, 254)

KOMLEV, G.A.; KLEANDROV, T.N.; CHAKHOTIN, V.S.; UDALOV, L.K.; MAKAROV, V.F.

Reducing losses of metal in the processing of mercury ores in rotary tube furnaces. Izv.AN Uz.SSR.Ser.tekh.nauk 8 no.4:66-69 '64.
(MIRA 18:4)

1. Sredneaziatskiy filial Gosudarstvennogo nauchno-issledovatel'skogo instituta tsvetnykh metallov.

ACC NR: AT6036427

finding was that the rate of exoelectron emission from the surface of a metal is influenced by and commensurate with the degree of the metal's previous cold deformation. Thus the counting rate for specimens of sheet aluminum deformed 50% is roughly four times as high (20 pulses/sec) as the counting rate for specimens deformed 10% (~5 pulses/sec). It is thus clear that the exoelectron emission method represents a major new technique of metallographic investigation. Orig. art. has: 11 figures.

SUB CODE: // / SUBM DATE: none/ ORIG REF: 001/ OTH REF: 002

Card 4/4

ACC NR: AT6036427

The investigation was performed with the aid of a setup specially designed and constructed in the Moscow Institute of Aviation Technology and consisting of a SI-2B gas-discharge counter, a PS-10000 scaler, an ISS-3 counting rate meter, a tank for the preparation of the quenching mixture and a KhA thermocouple for measuring the specimen's temperature. The setup is equipped with a furnace for heating specimens to a temperature of 300°C. Findings: with heating of the specimen the number of pulses monotonically increased. On slow cooling of the specimen an emission peak corresponding to the crystallization temperature was recorded. In general, the very presence of an emission peak makes it possible to determine the temperature of phase transformations. With respect to Sn alloys the emission peaks at the instants of phase transformation were 22, 32 and 42 pulses/sec, respectively, which is in good agreement with theory (constitution diagram of Sn-Pb) and the experimental findings of Futschik et al. (Z. Physik, H. 145, Nr. 48, 1956). New experimental findings were obtained on the exoelectron emission of alloys af the Al-Zn system. In particular, the investigation of exoelectron emission in the presence of solid-state transformations of alloys with 8 and 15% Zn established complete correspondence between the position of emission peaks on the temperature axis with the line of limited solubility of Zn in Al in solid state. Further, it is established that the magnitude of the emission peak is independent of the thermal effects of the transformations. Hence the exoelectron emission method serves equally well to determine both the transformations from liquid to solid state and from solid to liquid state. Another new

Card 3/4

vestigated. Specimens 1-2 mm thick and measuring from 20 to 250 mm^2 in area were placed on a mica sheet atop a hollow water-cooled steel base plate (Fig. 1).

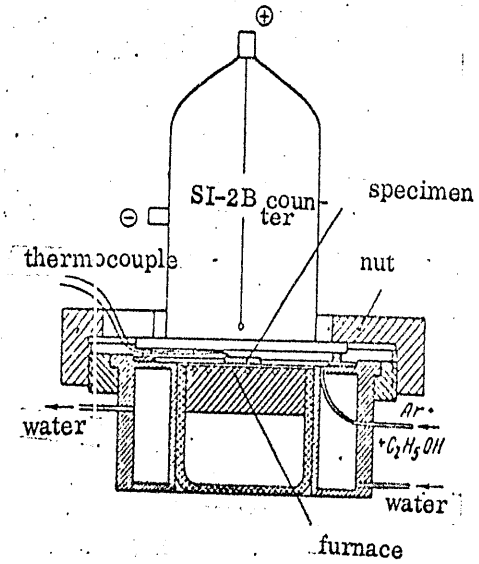


Fig. 1. Schematic representation of the design of the base plate for a Geiger-Mueller counter

ACC NR: AT6036427 SOURCE CODE: UR/2536/66/000/066/0174/0182

AUTHOR: Rostovtsev, G. N. (Candidate of technical sciences); Makarov, V. D. (Engineer)

ORG: none

TITLE: Investigation of phase and structural transformations in metals and alloys with the aid of exoelectron emission

SOURCE: Moscow. Aviatsionnyy tekhnologicheskiy institut. Trudy, no. 66, 1966. Struktura i svoystva aviatsionnykh staley i splavov (Structure and properties of aircraft steels and alloys), 174-182

TOPIC TAGS: ALLOY PHASE DIAGRAM, gas discharge counter, scaler, count rate meter, exoelectron emission, electron emission, metal surface, tin, aluminum base alloy, phase composition / SI-2B gas discharge counter, PS-1000 scaler, ISS-3 count rate meter

ABSTRACT: The purpose of this project was to develop methods of investigating phase and structural transformations by means of exoelectron emission on using modern electronic apparatus. Tin, alloys of tin with lead (14, 38.1 and 94% Pb), alloys of aluminum with zinc (8 and 15% Zn), and sheet aluminum subjected to various degrees of deformation were thus in-

Card 1/4 UDC: 669.017:620.18

MAKAROV, V.D.

Characteristics of mining the lower levels of the Verkhniy Zgid deposit. Gor. zhur. no.4:27-29 Ap '65. (MIRA 18:5)

1. Glavnyy inzh. Sadonskogo rudoupravleniya.

MAKAROV, V.D.

More productive variants in the system of working thin veins with shrinkage stoping with backfill. Gor. zhur. no.5:29-31 My '63.
(MIRA 16:5)

1. Glavnyy inzh. Sadonskogo rudoupravleniya.
(Sadon region--Mining engineering)

AKIF'YEV, A.P.; MAKAROV, V.B.; POLUNOVSKIY, V.A.; YURCHENKO, V.V.

Study of chemical mutagenesis in a transplanted culture of L-cells. Genetika no.3:19-26 S '65.

(MIRA 18:12)

1. 2-y Moskovskiy meditsinskiy institut. Submitted June 12, 1965.

MAKAROV, V.B., inzh. (g.Kuybyshev)

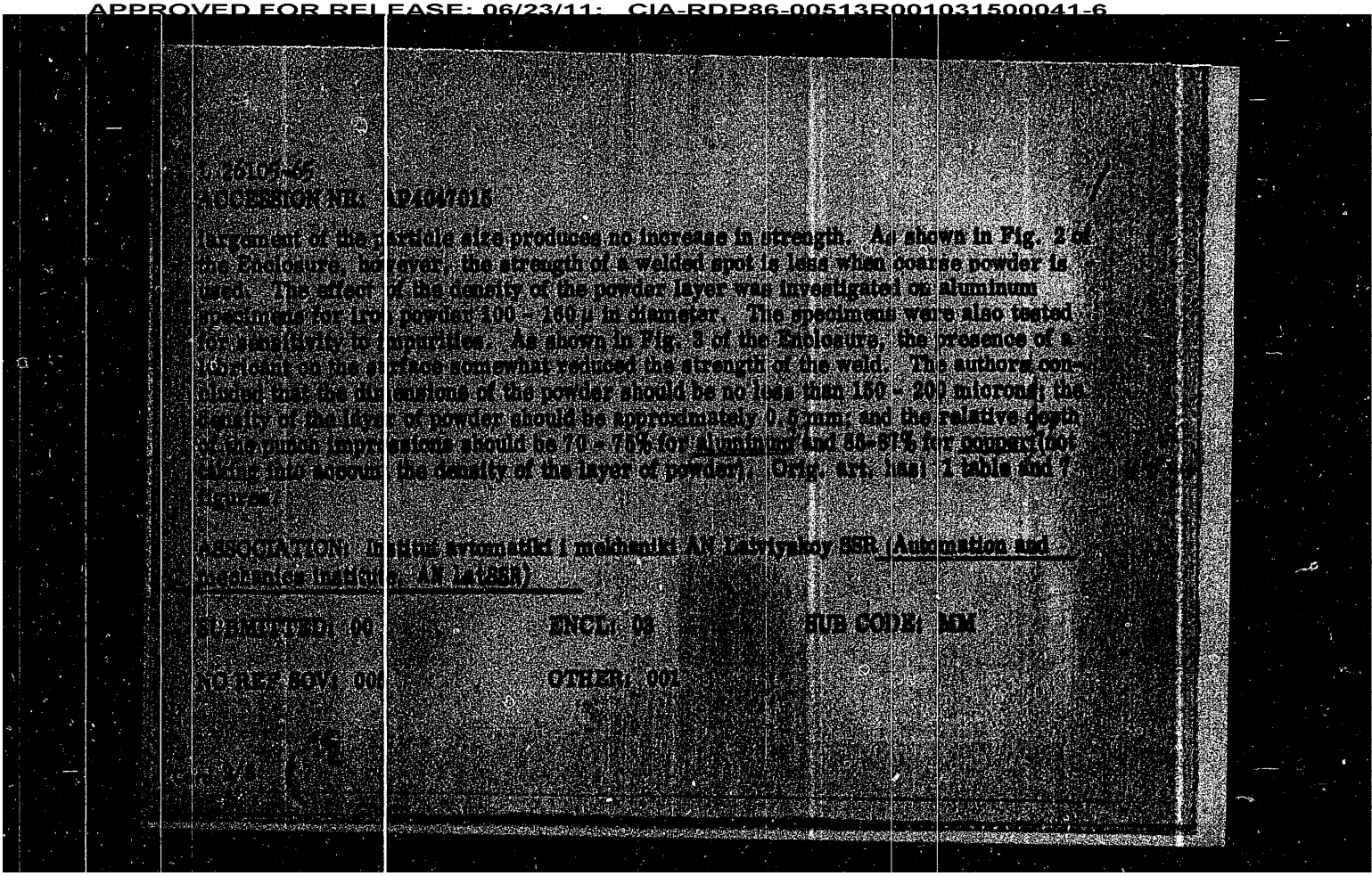
Precast paving of the earth slopes of hydraulic structures with reverse filters from porous concrete. Gidr. i mel. 12 no.10:24-29 O '60. (MIRA 13:11)

(Hydraulic structures)
(Precast concrete construction)

KOLOTYRKIN, Ya.M.; MAKAROV, V.A.; KUZUB, V.S.; TSINMAN, A.I.; KUZUB, L.G.

Anodic protection of heat exchangers made of 1Kh18N9T steel in concentrated sulfuric acid at temperatures of 100 - 120°. Zashch. met. 1 no.5:598-600 S-O '65. (MIRA 18:9)

1, Nauchno-issledovatel'skiy fiziko-khimicheskiy institut imeni L.Ya.Karpova, Moskva.



L 28104-65

ACCESSION NR: AP4047016

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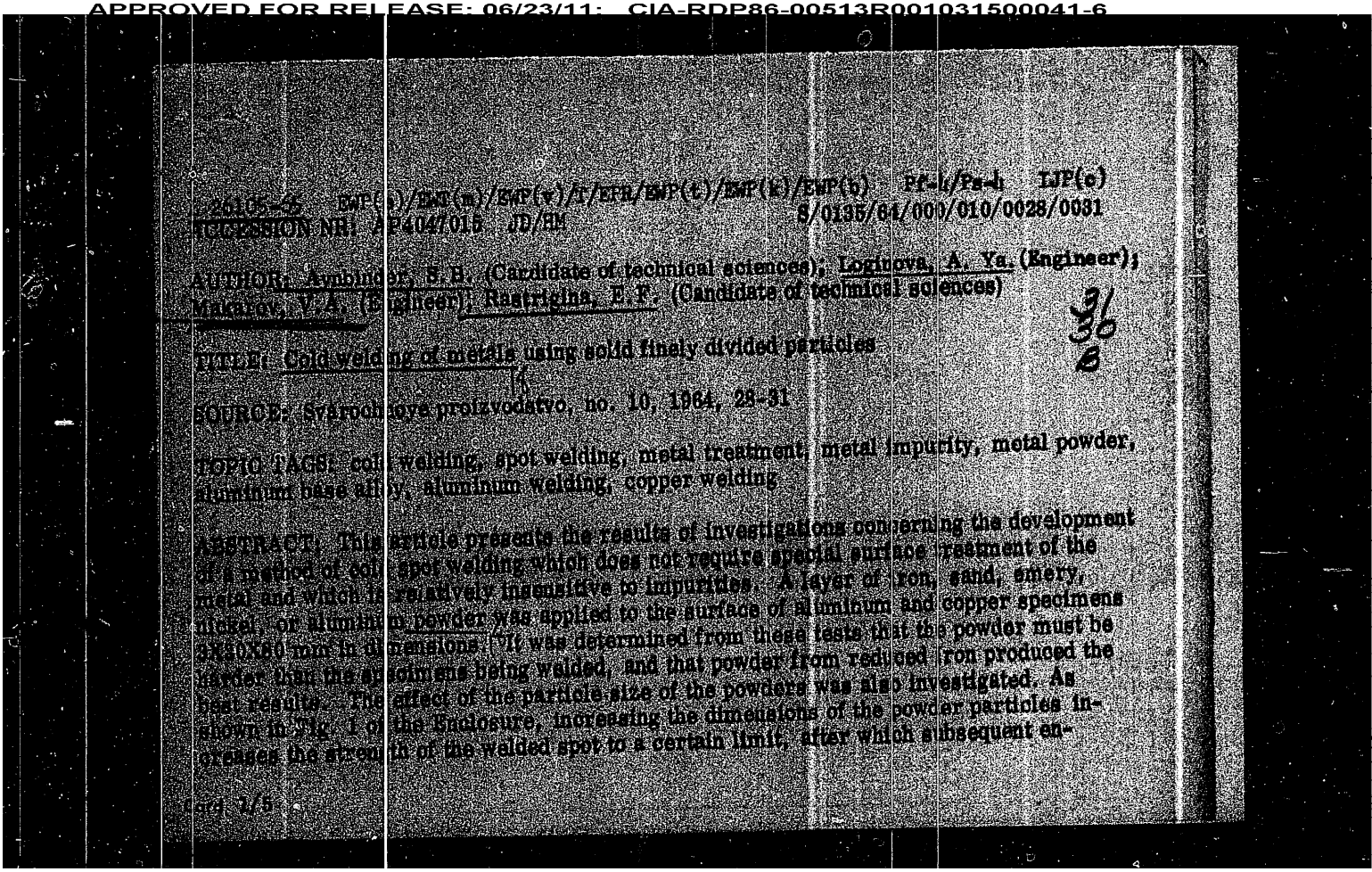
Increment of the particle size produces no increase in strength. As shown in Fig. 2 of the Enclosure, however, the strength of a welded spot is less when coarse powder is used. The effect of the density of the powder layer was investigated on aluminum specimens for iron powder 100 - 160 μ in diameter. The specimens were also tested for sensitivity to impurities. As shown in Fig. 3 of the Enclosure, the presence of a non-metallic on the surface somewhat reduced the strength of the weld. The authors concluded that the dimensions of the powder should be no less than 150 - 200 microns; the density of the layer of powder should be approximately 0.5 gram; and the relative depth of the punch impressions should be 70 - 75% for aluminum and 55-60% for copper (not taking into account the density of the layer of powder). Orig. art. has: 1 table and 7 figures.

ASSOCIATION: Institut avtomatiki i mekhaniki AN Latviyskoy SSR (Automation and mechanics institute, AN Latvian SSR)

SUBMITTED: 00 ENCL: 04 SUB CODE: MM

NO REF SOV: 001 OTHER: 001



L 26105-65 EWP(e)/EWT(m)/EWP(v)/T/EFR/EWP(t)/EWT(k)/EWP(b) Pf-4/Pa-4 IJP(c)
ACCESSION NR: AP4047015 S/0135/64/000/010/0028/0031 JD/HM

AUTHOR: Aynbinder, S. B. (Candidate of technical sciences); Loginova, A. Ya. (Engineer); Makarov, V. A. (Engineer); Reutskiy, E. F. (Candidate of technical sciences)

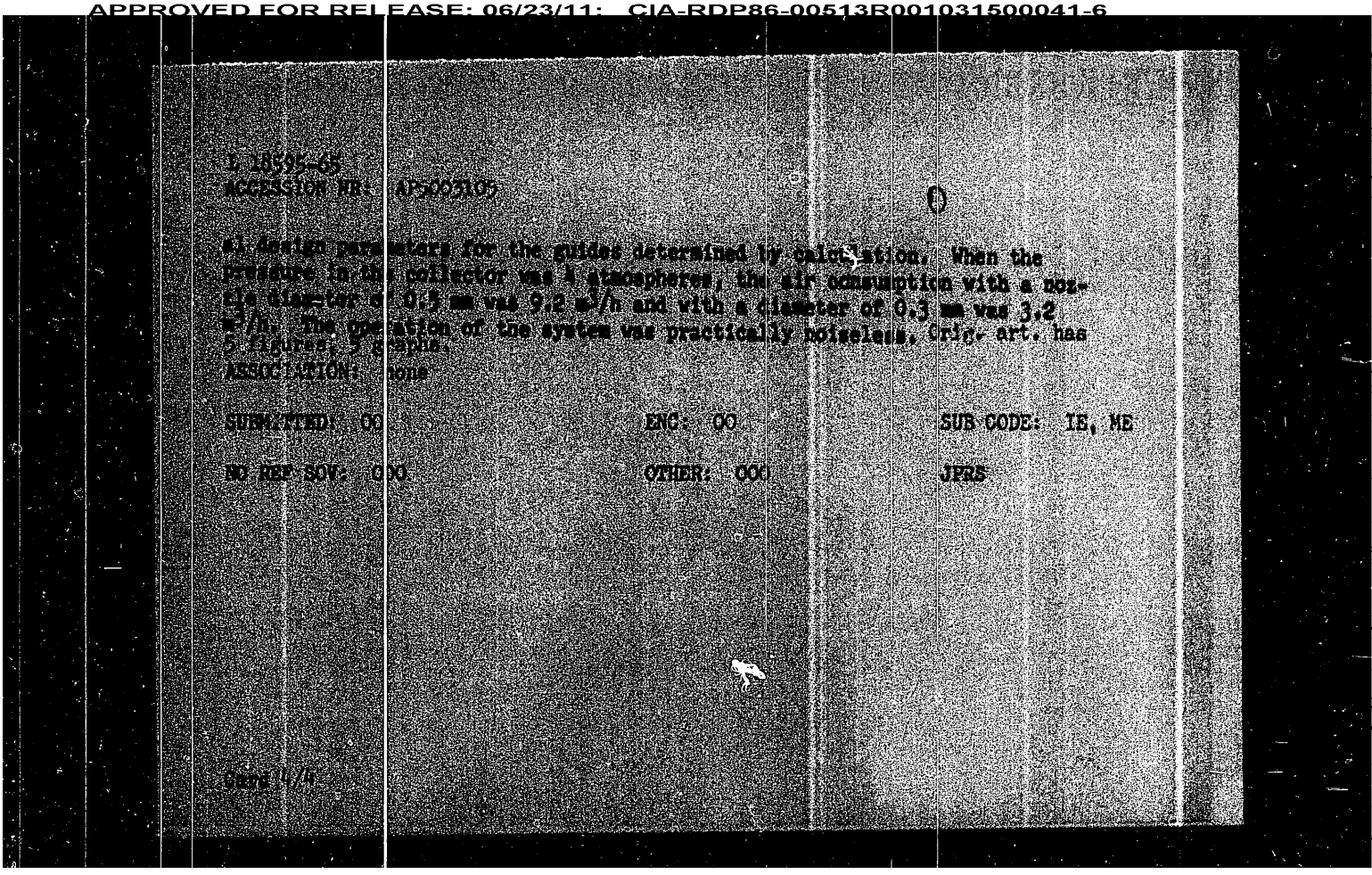
TITLE: Cold welding of metals using solid finely divided particles

SOURCE: Svarochnoye proizvodstvo, no. 10, 1964, 28-31

TOPIC TAGS: cold welding, spot welding, metal treatment, metal impurity, metal powder, aluminum base alloy, aluminum welding, copper welding

ABSTRACT: This article presents the results of investigations concerning the development of a method of cold spot welding which does not require special surface treatment of the metal and which is relatively insensitive to impurities. A layer of iron, sand, emery, nickel, or aluminum powder was applied to the surface of aluminum and copper specimens 3X20X80 mm in dimensions. It was determined from these tests that the powder must be harder than the specimens being welded, and that powder from reduced iron produced the best results. The effect of the particle size of the powders was also investigated. As shown in Fig. 1 of the Enclosure, increasing the dimensions of the powder particles increases the strength of the welded spot to a certain limit, after which subsequent en-

Card 1/5



L 10595-65
ACCESSION NR: AP5003109

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e) design parameters for the guides determined by calculation. When the pressure in the collector was 4 atmospheres, the air consumption with a nozzle diameter of 0.5 mm was 9.2 m³/h and with a diameter of 0.3 mm was 3.2 m³/h. The operation of the system was practically noiseless. Orig. art. has 5 figures, 9 graphs.

ASSOCIATION: none

SUBMITTED: 00 ENC: 00 SUB CODE: IE, ME

NO REF SOV: 000 OTHER: 000 JPRS

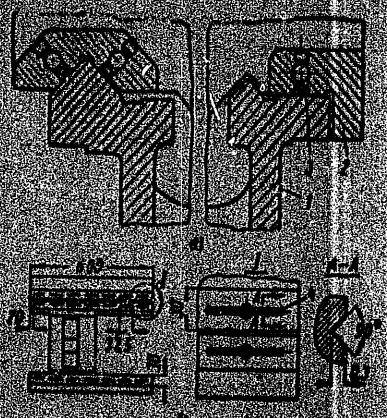
Card 4/4

Drilled through the body of the carriage 2 are air channels through which air is fed to nozzles 3. From the aperture of the nozzles, the air goes into pocket 4 which is made in the form of a groove along the axis of the guide. This type of pocket forms a plane-parallel stream of air which flows from the pocket into the gap between carriage 2 and bed 1. The LA87-2.5 brass nozzle is pressed into the aperture in the carriage and scraped flush with the surface of the guide. The height of buoyancy was measured at six points (three on prismatic and three on flat guides). The arithmetical average of measurements at three points for each guide was taken as the height of buoyancy. The carriage was loaded by two tuning fork dynamometers (directly over the guides) until the gap for both guides was less than 3 microns. At this point the loading (taking the weight of the carriage into account) was: 1) for a nozzle diameter of 0.2 mm at a pressure in the collector of 3 atmospheres, 282 kg, at 3 atmospheres, 237 kg; 2) for a nozzle diameter of 0.5 mm at a collector pressure of 4 atmospheres, 311 kg, at 3 atmospheres, 270 kg. The average value of the rigidity for both guides with a gap of 4 microns and a pressure of 4 atmospheres was: 12 kg/micron when the nozzle diameter was 0.2 mm; 9 kg/micron when the nozzle diameter was 0.5 mm. It should be noted that the rigidity of even such narrow guides as those on the stand may be raised still more by more ration-

L 18595-65

ACCESSION NR: AP5003105

carriage was made 15-32 cast iron, for the bed--HBCh 28-48 cast iron. The design of the aerostatic guides is shown schematically in the drawing below.



Design of aerostatic guides: from the side of the guides a) neck on through the nozzles; b) carriage

Cd: 2/4

ACCESSION NR: AP5009105 S/0121/64/000/009/0010/0013

AUTHOR: Makarov, V. A.

TITLE: Experimental study of the dynamic characteristics of aerostatic guides

SOURCE: Stanki i instrument, no. 9, 1964, 10-13

TOPIC TAGS: machine tool, lathe

Abstract: One of the means for raising the accuracy of displacement of the working units of precise machine tools is to create an aerostatic cushion for the guides. This study was conducted in order to clear up the character of the amplitude-frequency characteristics of aerostatic guides in relationship to the disturbing force and the point of its application and to determine ways for reducing the amplitude of degenerate oscillations. The work was conducted by Nosatenkin (Moscow Machine Tools and Instruments) in the machine tool laboratory of the Krasnyy Proletariy factory. The study was conducted on a stand set up on the base of a model 1K62 screw cutting lathe. The aerostatic cushion was created between the guides of the bed and the carriage. The guides for the bed were ground (7th class surface finish) those for the carriage were scraped (10-12 spots in a square with a side of 25 mm). The material for the

Card 1/4

SHTEYNBERG, D.S.; FOMINYKH, V.G.; MAKAROV, V.A.

Composition of pyroxenes in the Kachkanar intrusive complex.
Trudy Inst. geol. UFAN SSSR no.70: 55-97 '65. (MIRA 18:12)

IPATENKO, N.G.; NESTEROV, T.S., dotsent; KUTILOV, I.N., dotsent; AKOPYAN, Ye.Sh., kand.veterin.nauk; KARAVAYEV, V.M.; PENIONZHKO, A.M.; MAKAROV, V.A., assistent.

Veterinary sanitation expertise. Veterinariia 41 no.3:83-93 Mr '64. (MIRA 18:1)

1. Upravleniye tsentra Ministerstva proizvodstva i zagotovok sel'skokhozyaystvennykh produktov RSFSR (for Ipatenko). 2. Vitebskiy veterinarnyy institut (for Nesterov, Kutilov). 3. Vsesoyuznyy nauchno-issledovatel'skiy institut veterinarnoy sanitarii (for Akopyan). 4. Moskovskaya veterinarnaya akademiya (for Makarov).

MAKAROV, V.A.

Our friends speak. Veterinariia 38 no.1:13-14 Ja '61.
(MIRA 15:4)

(Russia--Relations (General) with Bulgaria)
(Bulgaria--Relations (General) with Russia)

SHVERNIK, Aleksandr Mikhaylovich; SOKOLOV, Anatoliy Valentinovich; POLUBELOV, Aleksey Sergeyevich; KISELEV, Georgiy Ivanovich; BERNSHTEYN, Rafail Lazarevich; SLAVUTSKIY, Samuil Oskarovich; NEVEL'SHTEYN, Yuriy Grigor'yevich; KONDRATENKO, Leonid Fedorovich; LASKIN, Anatoliy Aronovich; LUR'YE, Zakhar Solomonovich; MAKAROV, Vladimir Aleksandrovich; NOVOZHILOV, M.G., retsenzent; BILLICHENKO, N.Ya., retsenzent; VARSHAVSKIY, A.M., retsenzent; TARTAKOVSKIY, B.N., retsenzent. Prinimali uchastiye: ANTONOV, V.A., inzh.; VERBLYUNSKIY, Yu.I., inzh.; ZEMSKOV, P.F., otv. red.

[Overall mechanization and automatic control in strip mines] Kompleksnaia mekhanizatsiia i avtomatizatsiia na kar'erakh. Moskva, Nedra, 1964. 582 p. (MIRA 18:4)

MAKAROV, V.A.; MYACHIN, V.F.

Transistorized measuring equipment for marine automatic control systems of the electrochemical protection against corrosion. Inform. sbor. TSNIIMF no.64. Tekh. ekspl. mor. flota no.9:54-63 '61. (MIRA 16:6)

(Hulls (Naval architecture)--Corrosion)
(Cathodic protection)
(Automatic control)

SHAPOSHNIKOV, N.F., inzh.; MAKAROV, V.A., inzh.

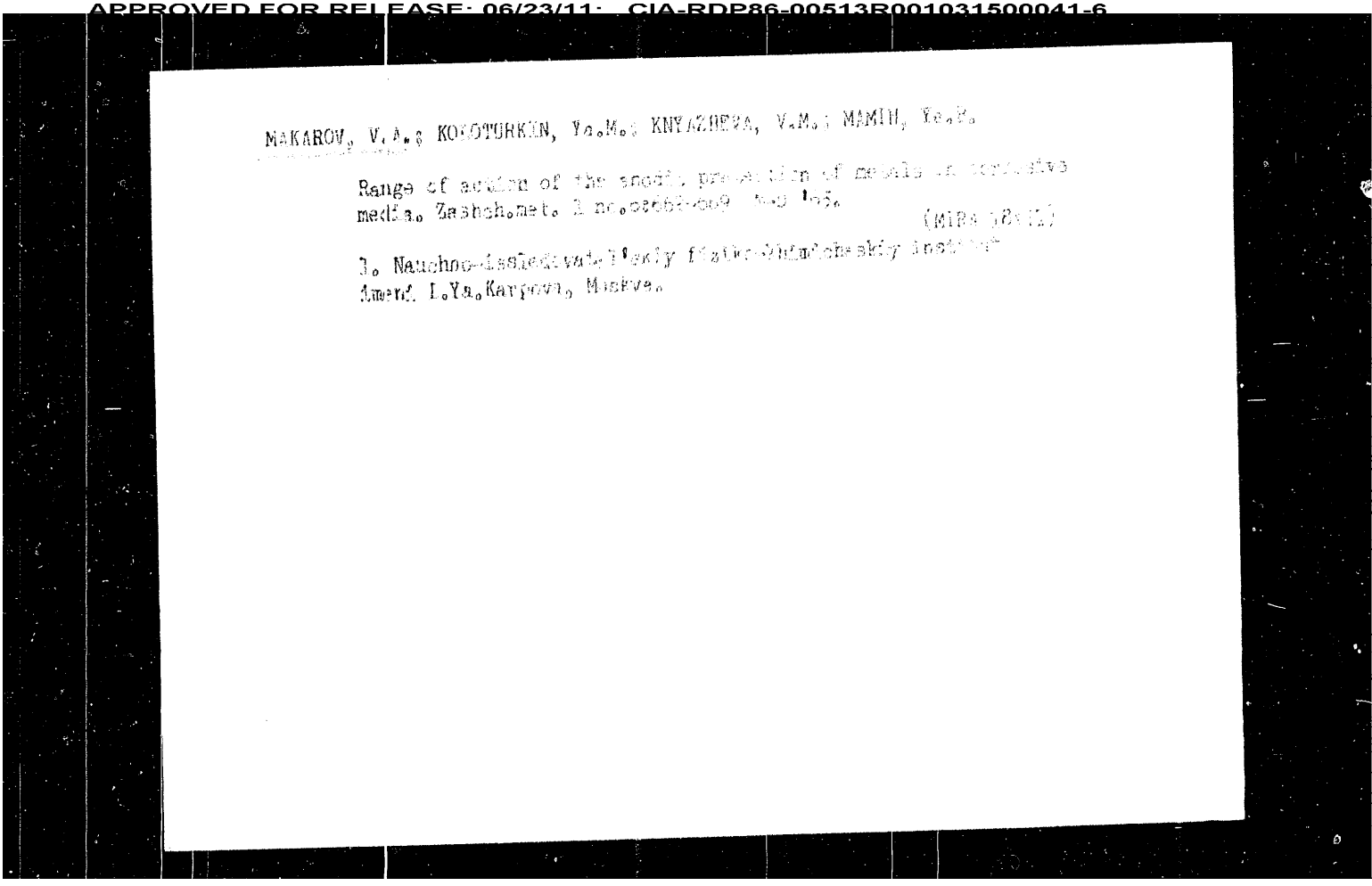
Automation of the continuous flow-line concreting of the Krasnoyarsk Hydroelectric Power Station. Mekh.stroi. 17 no.8:10-14 Ag '60. (MIRA 13:8)
(Krasnoyarsk Hydroelectric Power Station)
(Automatic control)

MAKAROV, V.A.

Experimental investigation of dynamic characteristics of aeronautic guides. Stan.i instr. 35 no.9:10-13 S '64. (MIRA 17:10)

MAKAROV, V. A.

Calculation of aerostatic guides. Stan. i Inst. 22 no.5 18-22 My '64. (MIRA 17:7)



MAKAROV, V.A.; KOSOTURKIN, Ya.M.; KNYAZHEVA, V.M.; MAMIN, Ye.K.

Range of action of the smoke preparation of menthol in corrective medicine. Zashch.met. 3 no.2:268-269 '67. (MIRA 18:5)

1. Nauchno-issledovatel'skiy fiziko-khimicheskiy institut imeni L.Ya.Karpova, Moskva.

MAKAROV, V.A.

Division of tuffaceous formation in the Tunguska syneclise.
Izv.vys.ucheb.zav.; geol. i razv. 7 no.3:134-137 Mr '64.
(MIRA 18:3)

1. Leningradskiy gornyy institut im. G.V.Plekhanova.

YANCHUK, E.A.; MAKAROV, V.A.

Method of making a photometric wedge for measuring the reflective power of minerals. Min. sbor. no.17:207-210 '63. (MIRA 17:11)

1. Gosudarstvennyy universitet imeni Franko, L'vov.

TUROVSKIY, S.D.; MAKAROV, V.A.; NOSYREV, I.V.

Find of ore pebbles in Lower Carboniferous conglomerates of the Boordu region (northern Tien Shan). Dokl. AN SSSR 147 no.1:210-211 N '62. (MIRA 15:11)

1. Institut geologii AN Kirgizskoy SSR. Predstavleno akademikom D.S. Korzhinskim.
(Boordu region--Ore deposits)

LITVINENKO, O.K.; MAKAROV, V.A.

Using electronic machines to solve a direct problem of gravity prospecting for three-dimensional convex bodies (seismic structures). Prikl. geofiz. no.33:155-160 '62. (MIRA 15:10)
(Gravity prospecting) (Electronic calculating machines)

KURANCHEV, M.I., starshiy nauchnyy sotrudnik; MOISEYEV, I.F.; MAKAROV, V.A.

Forcing cement mixes behind the lining of railroad tunnels without stopping the traffic. Transp.stroi. 10 no.8: 19-22 Ag '60. (MIRA 13:8)

1. TSentral'nyy nauchno-issledovatel'skiy institut transportnogo stroitel'stva (for Kuranchev). 2. Nachal'nik tonnel'no-mostovogo otryada No.1 (for Moiseyev). 3. Nachal'nik mostopoyezda No.57 (for Makarov).
(Tunnels--Maintenance and repair)

equation is solved for various initial and boundary conditions. The calculated results are compared with experimental results of C. Edeleanu and I. Gibson (Chem. Ind., 1961, N. 10, 301) (see Fig. 1).

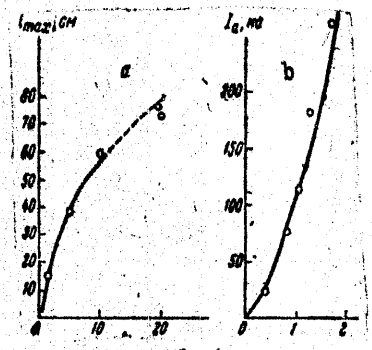


Fig. 1. Comparison of calculated and experimental data for steel 18-6 in 30% sulfuric acid. a - extent of passive region for the case of partially passivated construction; b - current from the active region of the pipe. Open circles: experimental data taken from reference cited.

It is suggested that the derived expression for the depth of anodic protection should prove useful in the development of methods for the protection of pipelines exposed to the action of corrosive media. Orig. art. has: 5 graphs and 19 equations.

SUB CODE: 07, 13/ SUBM DATE: 19Apr65/ ORIG REF: 007/ OTH REF: 009

L 23871-66 EWT(m)/EWA(d)/EWP(t)/EWP(k) IJP(c) JD/WB
ACC NR: AP6008023 SOURCE CODE: UR/0365/65/001/006/0662/0669

52
AUTHORS: Makarov, V. A.; Kolotyrkin, Ya. M.; Knyazheva, V. M.; Mamin, Ye. B. 51

ORG: Scientific Research Physico-Chemical Institute im. L. Ya. Karpov (Nauchno-issledovatel'skiy fiziko-khimicheskiy institut) B

TITLE: The extent of anode protection of metals from corrosion in corrosive media

SOURCE: Zashchita metallov, v. 1, no. 6, 1965, 662-669 18

TOPIC TAGS: electrochemistry, corrosion, corrosion protection, corrosion resistant steel/ 18-8 steel, pipeline, steel

ABSTRACT: A theoretical derivation for the depth of anodic protection offered to a metal pipe surface exposed to corrosive media is presented. The derivation is based on the assumption that the anodic polarization curve in the region of the "active loop" may be divided into a finite number of regions, for each of which the current-potential relationship may be expressed by an equation similar in form to Tafel's equation. It is also assumed that, in passive region, the current density is independent of the potential. The differential equation

$$\frac{\partial^2\varphi}{\partial x} - \frac{2\rho}{r} f(\varphi) = 0$$

is derived, where $f(\phi) = i$, i is the current, ϕ the potential on the outer surface of the pipe, r is the radius of the pipe, and ℓ the depth of anodic protection. This

Card 1/2 UDC: 620.197.5

MAKAROV, M.A., kand.med.nauk

Evaluation of the arterial vascular tonus by the magnitude of the oscillographic index. Klin. med. 40 no.11:157 N'62
(MIRA 16:12)

ASKEROV, Ali Aslanovich, kand. med. nauk; KOVALEV, Yefim Ivanovich, kand. med. nauk; MAKAROV, V.A., red.; BASHMAKOV, G.M., tekhn. red.

[Medical control of physical exercises for elderly subjects] Vrachebnyi kontrol' pri zaniatiiakh fizicheskimi uprazhneniiami v starshem vozraste. Moskva, Medgiz, 1962. 180 p. (MIRA 15:12)

(EXERCISE THERAPY)
(AGED--CARE AND HYGIENE)

MAKAROV, Vladimir Aleksandrovich

[Arterial oscillography in medical supervision of sports]
Arterial'naia ostsillografiia vo vrachebno-sportivnoi praktike.
Moskva, Medgiz, 1958. 66 p. (MIRA 12:2)
(BLOOD PRESSURE)

Abs Jour : Ref Zhur - Biologiya, No 1, 1959, No. 3422

considerably greater elevation in them after a workload, to a greater build-up of the systolic volume of the heart and a lesser tonus of the small arteries. -- V. V. Rozenblat

USSR / Human and Animal Physiology. Blood Circulation. T-4

Abs Jour : Ref Zhur - Biologiya, No 1, 1959, No. 3422

After a dosaged exercise (stationary running), the arterial pressure of the fingers rose to an average of 98.4 mm Hg in the trained and to 84.8 mm Hg in the untrained, the capillary blood circulation became more intensive (especially in the trained atheletes). Following a training-exercise, the arterial pressure of the finger rose in the boxers and wrestlers (to an average of 106 - 107 mm Hg in the trained and up to 90 - 91 mm Hg in the untrained) and the number of capillaries in the field of vision increased; in the swimmers, a sinking of the arterial pressure of the finger (down to 65.8 mm Hg in the trained and to 61.1 mm Hg in the untrained) and a spasm of the capillaries was noted, which may be explained by the reflectory effect of the cold water (15 - 23°). The author relates the higher values of the arterial pressure of the finger in the trained at rest, and its

Card 2/3

USSR / Human and Animal Physiology. Blood Circulation. T-4

Abs Jour : Ref Zhur - Biologiya, No 1, 1959, No. 3422

Author : Makarov, V. A.
Inst : Not given
Title : Variations of the Blood Circulation in Small Arteries and Capillaries During Sport Exercises

Orig Pub : Teoriya i prktika fiz. kultury, 1957, 20, No 4, 281-285

Abstract : Twenty boxers, 20 wrestlers, and 20 swimmers, ranging in age from 18 - 35 years, were the subject of a study. At rest, arterial pressure readings of the finger, taken by Gaertner's tonometer in combination with the oscillograph of Serkin, were in the average 86.1 mm Hg in trained and 77.3 mm Hg in untrained persons; the capillaroscopic picture of the unguinal skin fold was normal in both groups; the number of capillaries in the linear field of vision amounted to 16 in the average.

Card 1/3

MAKAROV, V.A.

Asymmetry in the function of the visual analysor during muscular work [with summary in English]. Zhur.vys.nerv.deiat. 7 no.3:359-362 My-Je '57. (MIRA 10:10)

1. Kafedra lechebnoy fizkul'tury u vrachebnogo kontrolya TSentral'nogo instituta usovershenstvovaniya vrachey.

(EXERCISE, effects,
on visual analysor electrical sensitivity threshold in cerebral cortex (Rus))
(CEREBRAL CORTEX, physiology,
visual analysor electrical sensitivity threshold in exercise (Rus))

MAKAROV, V.A., kandidat meditsinskikh nauk

Effect of physical stress on arterial tonus in athletes. Sov.med 19 no.6:44-49 Je '55. (MLRA 8:9)

1. Iz kafedry lechebnoy fizkul'tury i vrachebnogo kontrolya (zav.-prof. V.N. Moshkov) Tsentral'nogo instituta usovershenstvovaniya vrachey (dir. V.P. Lebedeva)

(ATHLETES, physiology,
eff. of effort on arterial tonus in athletes)
(EXERCISE, effects,
on arterial tonus in athletes)
(ARTERIES, physiology,
eff. of effort on tonus in athletes)

MAK 137, V. A.

"Application of Certain Methods of Investigation by the Cardio-vascular System in Medical Practice in Sports." Kand. Med. Sci, Scientific Inst for the Improvement Training of Physicians, 16 Feb 54. Dissertation (Vecherniaya Moskva Moscow, 5 Feb 54)

SO: SUM 186, 19 Aug 1954

MAKAROV, V.A.

25790 Makarov, V.A. O Nekotorykh Voprosakh Organizatsii Meditsinskoy Pomoshchi Invalidam Otechestvennoy Voyny. V Sb: Problemy Vosstanovit. Lecheniya Invalidov Otechestv. Voiny. Astrakhan', 1948, S. 5-11.

SO: Letopis' Zhurnal Statey, No. 30, Moscow, 1948

VINOGRADOV, K.; MAKAROV, V.

Public inspection is mobilizing. Na stroi.Ros. 6 no.2: 19 F '65. (MIRA 19:1)

1. Zamestitel' nachal'nika tekhnicheskogo upravleniya Glavnogo upravleniya po stroitel'stvu v Moskovskom ekonomicheskom rayone Ministerstva stroitel'stva RSFSR (for Vinogradov). 2. Nachal'nik laboratorii kontrolya kachestva Glavnogo upravleniya po stroitel'stvu v Moskovskom ekonomicheskom rayone Ministerstva stroitel'stva RSFSR (for Makarov).

MAKAROV, V., polkovnik

The strength of the press is in party leadership. Komm. Vooruzh. Sil 46 no.6:88-92 Mr '65. (MIRA 18:11)

MAKAROV, V., inzhener-podpolkovnik; ALEKSEYENKO, V., inzhener-kapitan

Checking thermostats. Tekh. i vooruzh. no.4:84 Ap '64.
(MIRA 17:5)

MAKAROV, V., kand.tekhn.nauk; PROKHOROVA, A., nauk.tekhn.nauk

Characteristics of the storage of pulse crop seeds. Muk.-elev. prom. 28 no.9:5-7 S '62. (MIRA 15:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zerna i produktov yego pererabotki.
(Seeds--Storage) (Legumes)

MAKAROV, V.; PROKHOROVA, A.; PIMANOV, A.

Increasing the volume weight of grain by drying. Muk.-elev. prom. 26 no.9:12-13 S '60. (MIRA 13:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zerna i produktov yego pererabotki (for Makarov, Prokhorova). 2. Proizvodstvenno-tekhnicheskoye upravleniye Goskhlebkomiteta (for Pimanov).
(Grain-- Drying)

PROKHOROVA, A., kand. tekhn. nauk; MAKAROV, V., kand. tekhn. nauk;
GRUVICH, B., kand. tekhn. nauk; PINENOV, A., agro-khimik

Effect of the composition of coal on the quality of dried wheat.
Muk.-elev. prom. 25 no.8:18 Ag '59. (MIRA 13:1)
(Wheat--Drying) (Coal)

ZHDANOV, S., kand.tekhn.nauk; MAKAROV, V., inzh.; KROTOVA, O., inzh.

Device capable of seeing the invisible. Pozh.delo 9 no.7:22-23 Jl '63. (MIRA 16:10)

MAKAROV, V.

Automatic control of the pumping station of the Kirovsk-Omsk Grain Elevator. Muk.-elev. prom. 27 no.7:16-17 Jl '61. (MIRA 14:7)

1. Glavnyy energetik Kirovsk-Omskogo elevatora.
(Pumping stations)

FAYERSHTEYN, V., inzh.; MAKAROV, V., inzh.

Unit for probing soils. Na stroi.Ros. 4 no.6:12-13 Je '63. (MIRA 16:6)

(Soils—Testing)

LYUBIMOVA, V.V., doktor ekon. nauk; NOVIKOVA, O.G., kand. ekon. nauk; SERGEYEVA, A.G., kand. ekon. nauk; IVANOV, N.P., kand. istor. nauk; OBORINA, G.A., kand. ekon. nauk; KHLYNOV, V.N., kand. ekon. nauk; DANILEVICH, M.V., doktor ekon. nauk; POKATAYEVA, T.B., kand. ekon. nauk; USOV, G.A., kand. ist. nauk; SAL'KOVSKIY, O.V., kand. geogr. nauk. Prinimali uchastiye: PESCHANSKIY, V V., kand. ist. nauk; PIROGOVA, I.M.; PRONIN, S.V.; USVYATSOV, A.Ye.; MAKAROV, V., red.; DARONYAN, M., mladshiy red.; ULANOVA, L., tekhn. red.

[Real wages during the period of the general crisis of capitalism]Real'naia zarabotnaia plata v period obshchego krizisa kapitalizma. Moskva, Sotsekgiz, 1962. 558 p. (MIRA 16:3)

1. Akademiya nauk SSSR. Institut mirovoy ekonomiki i mezhdunarodnykh otnosheniy.
(Wages)

KUZ'MIN, N.A.; MAKAROV, T.V.

Propagation of a quasi-H_{01} wave in an H-shaped wave guide. Izv. vys. ucheb.zav.; radiofiz. 6 no.3:581-584 '63. (MIRA 16:9)
(Electromagnetic waves) (Wave guides)

L 17291-63 EWP(q)/EWT(m)/BDS

ACCESSION NR: AP3004844 S/0141/63/006/003/0581/0584

45

AUTHOR: Kuz'min, N. A.; Makarov, T. V.

TITLE: Propagation of quasi-H_{01} mode in a cross-shaped waveguide

SOURCE: IVUZ. Radiofizika, v. 6, no. 3, 1963, 581-584

TOPIC TAGS: cross-sahped waveguide, waveguide, H_{01} mode

ABSTRACT: This is a continuation of the authors' work (Izv. vy*ssh. uch. zav.-Radiofizika, 4, 1089, 1961). The Ritz method is again used to find a second approximation to the eigenvalue and eigen function of a quasi-H_{01} mode in a sector-cross waveguide. This data permits determining geometrical parameters of the waveguide which would ensure passing H_{01} mode with a minimum disturbance. Calculated curves serve to determine the optimum, insofar as the "purity" of the H_{01}-mode field is concerned, cross-section of the waveguide. Orig. art. has: 3 figures and 2 formulas.

Card 1/2

Attenuation of electromagnetic ...

χ - transverse wave number, k - wave number in free space, $S_\perp$ - cross-section of the waveguide, L - boundary of $S_\perp$, $\tilde{\Psi}$ - eigenfunction. Here $\tilde{h}$, $\tilde{\chi}$ and $\tilde{\Psi}$ are unperturbed quantities. The eigenfunctions and eigenvalues of a number of H modes in a rectangular cross shaped waveguide are determined by N.A. Kuz'min and T.V. Makarov (Ref. 2: Radiotekhnika i elektronika, 1961, 6, 12, 1989). The author takes the previously derived eigenfunctions, substitutes them into (1), performs the integration and gives numerical results for the quasi-$(H_{01} + H_{10})$ and quasi-$(H_{02} + H_{20})$ modes. The eigenfunctions for a sectoral cross-shaped waveguide are also determined by Kuz'min and Makarov (Ref. 3: Izv. vuzov MVO SSSR (Radiofizika), 1961 6). Substituting again into (1) the author calculates the attenuation for a quasi-H_{01} wave and concludes that the attenuation of this mode in the cross- shaped waveguide is always larger than that of the H_{01} mode in a circular waveguide. There are 3 figures and 3 Soviet-bloc references.

SUBMITTED: April 13, 1961

Card 2/2

34033
S/109/62/007/001/011/027
D266/D301

9.1300

AUTHOR: Makarov, T.V.

TITLE: Attenuation of electromagnetic waves due to losses in the walls of cross-shaped waveguides

PERIODICAL: Radiotekhnika i elektronika, v. 7, no. 1, 1962, 99 - 104

TEXT: The purpose of the paper is to calculate the attenuation of certain transverse electric waves in cross-shaped waveguides (both for rectangular and sectoral cross-section). The author starts the analysis by writing up the general formula (derived with the aid of Leontovich boundary conditions) for attenuating H waves in a waveguide of arbitrary cross-section

$$\beta = \frac{w}{2\tilde{h}} \frac{\tilde{h}^2 \oint_L \left| \frac{\partial \tilde{\psi}}{\partial l} \right|^2 dl + \tilde{\varkappa}^2 \oint_L |\tilde{\psi}|^2 dl}{k\tilde{\varkappa} \iint_{S_\perp} |\tilde{\psi}|^2 dS_\perp}, \qquad (1)$$

where w - wave impedance of the metal, $\tilde{h}$ - propagation coefficient,

Card 1/2

30430
S/109/61/006/012/005/020
D266/D505

Electromagnetic waves in ...

where a is the width of the waveguide (see Fig. 1). The eigenvalues resulting from the first and fourth approximations can be seen in Table 1 as a function of $\sigma = b/2a$. If $\sigma \longrightarrow 1$ this mode agrees with the sum of the H_{01} and H_{10} modes in the square waveguide. For this reason the author calls this mode a quasi-$(H_{10} + H_{01})$ mode (Fig.1a) In a similar manner the properties of a number of other modes are calculated namely quasi-H_{11} (Fig. 1b), quasi-$(H_{20} + H_{02})$ (Fig. 1c), quasi-$(H_{12} + H_{21})$ (Fig. 1d), quasi-H_{22} (Fig. 1e), quasi-$(H_{30} + H_{03})$ (Fig. 1f), quasi-$(H_{40} - H_{04})$ (Fig. 1g), quasi-E_{11} (Fig. 1h), quasi-$(E_{12} + E_{21})$ (Fig. 1i). It is shown that the eigenvalues of the H_{01} and E_{11} modes are different which suggests the possibility of using a cross-shaped waveguide for the bends of an H_{01} transmission system. There are 2 figures, 9 tables and 3 references: 2 Soviet-bloc and 1 non-Soviet-bloc.

SUBMITTED: April 15, 1961

Card 3/3

Electromagnetic waves in ...

is minimized. In (1) and (4) $\tilde{\psi}$ and ψ stand for the transverse wave functions of the H and E modes respectively, $\tilde{\varkappa}$ and $\varkappa$ are the respective eigenvalues (cut-off wave numbers) of the above modes. The nth approximation of the wave function is written in the following form:

$$u_n = \sum_{i=1}^{n} a_i \varphi_i \qquad (6)$$

where the φ_i functions satisfy the boundary conditions and the a_i coefficients are chosen to satisfy the equation system

$$\sum_{i=1}^{n} a_i [(\nabla\varphi_i, \nabla\varphi_j) - \left\{\frac{\tilde{\varkappa}}{\varkappa}\right\}^2 (\varphi_i, \varphi_j)] = 0; \quad j = 1, 2, 3, \ldots, n. \qquad (7)$$

where the brackets denote scalar multiplication. For the first H mode the trial function is assumed as follows:

$$\tilde{\psi}_1 = a_1 \sin\frac{\pi x}{2a} - a_2 \sin\frac{\pi y}{2a} + a_3 \sin\frac{3\pi x}{2a} - a_4 \sin\frac{3\pi y}{2a}.$$

Card 2/3

30430
S/109/61/006/012/005/020
D200/D305

9,1300

AUTHORS: Kuz'min, N.A., and Makarov, T.V.

TITLE: Electromagnetic waves in rectangular cross-shaped waveguides

PERIODICAL: Radiotekhnika i elektronika, v. 6, no. 12, 1961, 1989 - 1997

TEXT: The authors' purpose is to determine the electric and magnetic field configuration for a number of modes in the cross-shaped waveguide. The partial differential equation

$$\Delta\begin{Bmatrix}\tilde{\psi}\\ \psi\end{Bmatrix}+\begin{Bmatrix}\tilde{\varkappa}\\ \varkappa\end{Bmatrix}^2\begin{Bmatrix}\tilde{\psi}\\ \psi\end{Bmatrix}=0 \qquad (1)$$

is solved approximately with the aid of the Raleigh-Ritz method, i.e. the integral

$$\begin{Bmatrix}\tilde{\varkappa}\\ \varkappa\end{Bmatrix}^2=\iint_{S_\perp}\left(\nabla\begin{Bmatrix}\tilde{\psi}\\ \psi\end{Bmatrix}\right)^2 dS_\perp \qquad (4)$$

Card 1/6

S/141/61/004/006/012/017
E192/E382

Electromagnetic waves ....

ASSOCIATION Tsentral'nyy nauchno-issledovatel'skiy institut svyazi, Moskva (Central Scientific Research Institute of Communications, Moscow)

SUBMITTED: April 15, 1961

Card 8/8

Electromagnetic waves ....

$$\Psi_1 = \omega(r, \varphi)\left\{a_0 + \sum_n a_{n+1} J_n(2.405r/a)\left[\cos(n\varphi) + \sin(n\varphi)\right]\right\}$$

$$(n = 0, 1, 2, 3, \ldots)$$

where $\omega(r, \varphi)$ is a continuous function having finite and continuous derivatives inside the region S_1. The coordinate functions φ_i are also determined for the quasi-E_{11} waves. The results are illustrated in some graphs and tables, from which it is seen that no degeneration takes place between H_{01} and E_{11} waves in a cross-shaped waveguide. It is therefore possible to use such a waveguide for transmitting H_{01} waves in waveguide bends. There are 6 figures, 5 tables and 3 Soviet-bloc references.

Card 7/8

Electromagnetic waves ....

$$\psi_1 = \sum_n a_n J_n(1.84\ r/a)\left[\cos(n\varphi) - \sin(n\varphi)\right] \quad (n = 1, 2, 3 \ldots)$$

On the basis of this equation, a set of graphs is constructed for the eigen value $b\varkappa_1$ of the quasi-H_{11} wave as a function of Θ or $\mu = b/a$ (for various values of μ or Θ). This is shown in Fig. 2. Similar solutions are determined for the quasi-H_{21} and H_{01} waves. With regard to the critical frequency of the principal electric wave (quasi-E_{01}) this is determined by calculating the minimum non-zero eigen value of Eq. (1), subject to the conditions of Eq. (3). It is shown that the coordinate functions in this case are composed of a system of functions consisting of a product of function $\omega(r, \varphi)$ and various combinations of trigonometric and Bessel functions

Electromagnetic waves ....

φ_i (Ref. 1: S.G. Mikhlin: Direct Methods in Mathematical Physics GITTL, M-L, 1950) should satisfy the boundary condition of Eq. (3). A sequence of functions of φ_i should form a complete linearly-independent system. The coefficients a_i are chosen by finding the minimum for Eq. (4) under the condition expressed by Eq. (5). First, the magnetic waves are considered and it is pointed out that the eigen value of Eq. (2) for the condition of Eq. (2) for a cylindrical waveguide is given by the first root of the equation $J_1'(x) = 0$, which is equal to $1.84/a$, where a is the internal radius of the cylinder. Two degenerate magnetic waves of the H_{11} type correspond to this eigen value in a circular waveguide. The approximate solution of Eq. (6) for the quasi-H_{11} wave in a cross-shaped waveguide of Fig. 1a is therefore assumed to be in the form:

Card 5/8

Electromagnetic waves ....

under the conditions that:

$$\int_{S_\perp}\int \left\{\frac{\widetilde{\Psi}}{\Psi}\right\}^2 dS_\perp = 1 \qquad (5)$$

where ∇ is the two-dimensional Hamiltonian operator. The eigen values and the eigen functions can be determined by using the Ritz method, according to which the approximate solutions are in the form of a series:

$$u_n = \sum_{i=1}^{n} a_i \varphi_i \qquad (6)$$

where a_i are unknown coefficients. The functions

Card 4/8

Electromagnetic waves ....

$$H_z = \tilde{\varkappa}^2 \tilde{\psi} \; ; \qquad E_z = \varkappa^2 \psi$$

and

$$\begin{Bmatrix} \tilde{\varkappa} \\ \varkappa \end{Bmatrix} = k^2 - \begin{Bmatrix} \tilde{h} \\ h \end{Bmatrix}^2$$

where $\tilde{h}$ and h are propagation constants of the magnetic and electric waves, respectively. It is known that the extremum functionals, whose Euler equations are in the form of Eqs. (1), are in the form:

$$\begin{Bmatrix} \tilde{\varkappa} \\ \varkappa \end{Bmatrix}^2 = \int_{S_\perp} \left(\nabla \begin{Bmatrix} \tilde{\psi} \\ \psi \end{Bmatrix} \right)^2 dS_\perp \qquad (4)$$

Card 3/8

Electromagnetic waves ....

a) for magnetic waves -

$$\partial\tilde{\Psi}/\partial n\big|_L = 0 \qquad (2)$$

b) for electric waves -

$$\Psi\big|_L = 0 \qquad (3)$$

These boundary conditions apply on the contour L of the transverse cross-section S_1 of the waveguide. The operator Δ in Eq. (1) is the two-dimensional Laplace operator, $\tilde{\varkappa}$ and $\varkappa$ are eigen values of magnetic and electric waves respectively; $\underline{n}$ is the external normal to the contour. The functions $\tilde{\Psi}$ and Ψ are the longitudinal components of the magnetic and electric Hertz vectors, which are related to the longitudinal field components by the following equations

Card 2/4

33225
S/141/61/004/006/012/017
E192/E382

9.1300

AUTHORS: Kuz'min, N.A. and Makarov, T.V.

TITLE: Electromagnetic waves in a cross-shaped waveguide consisting of a number of sectors

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika, v. 4, no. 6, 1089 - 1098, /961

TEXT: The system considered is illustrated in Fig. 1a where the relevant geometrical parameters are indicated. Determination of fields and critical frequencies of the electromagnetic waves of E- and H-types in a regular ideally-conducting waveguide (such as shown in Fig. 1) is based on the solution of the scalar equations of the type:

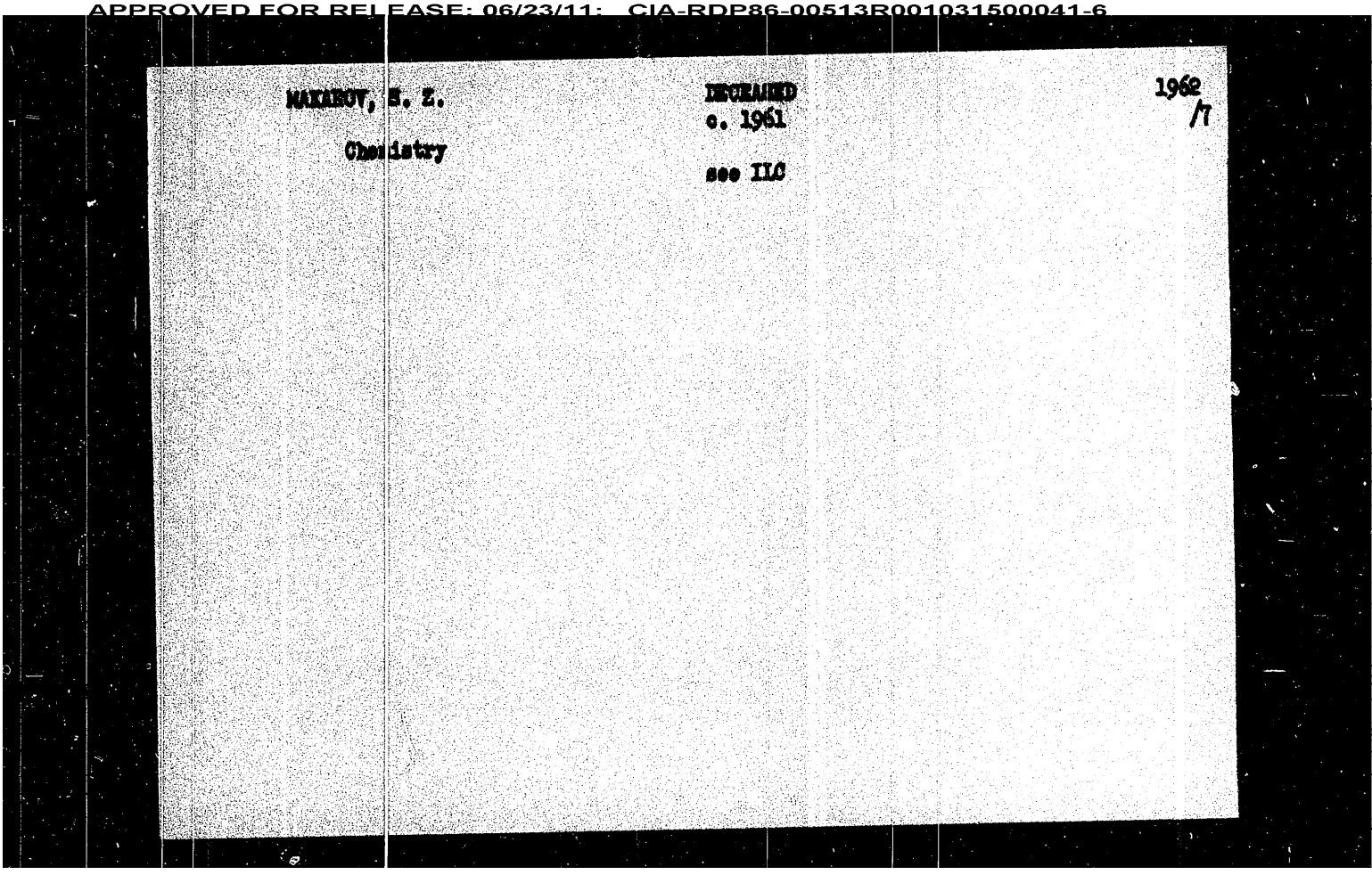
$$\Delta \begin{Bmatrix} \tilde{\psi} \\ \psi \end{Bmatrix} + \begin{Bmatrix} \tilde{\varkappa} \\ \varkappa \end{Bmatrix}^2 \begin{Bmatrix} \tilde{\psi} \\ \psi \end{Bmatrix} = 0 \qquad (1)$$

with the following boundary conditions:

Card 1/4

MAKAROV, T.A., inzh. (Ust'-Kamenogorsk)

Improvement of boiler protection networks. Energetik 13 no.5: 23-24 My '65. (MIRA 18:3)



MAKAROV, S. Z.

Chemistry

DECLASSIFIED
c. 1961

see ILC

1962
/7

ANAN'YEV, Ivan Vasil'yevich; TIMOFEYEV, Pavel Grigor'yevich. Prinimala uchastiye UL'YANOVA, Yu.T.; MAKAROV, S.Ya., inzh., retsenzent; ZASLAVSKIY, B.V., kand. tekhn. nauk, red.; BURAKOVA, O.N., red.

[Vibrations of elastic systems in airplane structures and their damping] Kolebaniia uprugikh sistem v aviatsionnykh konstruktsiiakh i ikh dempfirovanie. Moskva, Mashinostroenie, 1965. 525 p. (MIRA 18:4)

MAKSIMOV, V., podpolkovnik, kand.voyennykh nauk; ORESHCHENKOV, A., kapitan; MAKAROV, S., starshiy inzhener-leytenant; GOLOVIN, P., inzhener-podpolkovnik

What do you suggest? Av.i kosm. 45 no.8:70-71 '62. (MIRA 15:8)
(Aeronautics, Military)

SHEYNIN, Viktor Mikhaylovich; YAGODIN, Ye.I., inzhener, retsenzent; MAKAROV, S.Ya., inzhener, retsenzent; ZAYTSEVA, K.Ya., inzhener, nauchnyy redaktor; PETROVA, I.A., izdatel'skiy redaktor; CHISTYAKOVA, A.V., tekhnicheskiy redaktor

[Calculating aircraft centering] Raschet tsentrovki samoleta. Moskva, Gos. izd-vo obor.promyshl., 1955. 226 p. (MIRA 9:8)
(Airplanes--Design and construction)

Spravochnaya kniga po raschetu samoleta na prochnost' AID 510 - I

Facilities: None
No. of Russian and Slavic References: 14 before 1939, 38 after this date. A number of footnotes are given in parts 4 and 5.
Available: A.I.D., Library of Congress.

Purpose: This book is intended for engineers and designers; it may be useful also to students of aviation institutes of higher learning.

unknown in the USA methods of calculation. The novelty of it consists of the compilation of methods of strength calculation which otherwise must be looked for in various handbooks, textbooks and technical periodicals.

Table of Contents

MAKAROV, S. Ya.

PHASE I TREASURE ISLAND BIBLIOGRAPHICAL REPORT AID 510 - I

BOOK Call No.: AF 641131

Authors: ASTAKHOV, M. F., KARAVAYEV, A. V., MAKAROV, S. Ya., and SUZDAL'TSEV, Ya. Ya.

Full Title: HANDBOOK OF AIRCRAFT STRENGTH CALCULATIONS

Transliterated Title: Spravochnaya kniga po raschetu samoleta na prochnost'

PUBLISHING DATA

Originating Agency: None

Publishing House: State Publishing House of the Defense Industry (Oborongiz)

Date: 1954 No. pp.: 708 No. of copies: NOt given

Editorial Staff: The authors express thanks for help to the following: Shishkin, S. N., Doc. of Tech. Sci., Cheremuzhin, A. M., Prof., Doc. of Tech. Sci., Dubrovin, A. A., Kand. of Tech. Sci., Kurguzov, D. N., Eng., and Belous, A. A.

TEXT DATA

Coverage: This book is concerned exclusively with statics and does not contain problems not yet thoroughly verified in practice. The general character of the composition is entirely subordinated to the needs of engineers who start working in the field of aircraft strength calculations. Wherever it was possible, formulae were reduced through transformations or graphical interpretations to their practical form. Chapters in which new problems are considered contain more details than it should be expected from a handbook. The book contains, especially in parts 4 & 5, a comparatively large number of American and other foreign references, diagrams, graphs, tables, formulae.

On the basis of a general examination it may be stated that the book does not contain

MAKAROV, S. YA.

O priblizhennom opredelenii poletnogo vesa samoleta i ego chastei.
(Tekhnika vozdushnogo flota, 1945, no. 4, p. 8-10, 22, tables.)

Title tr.: Estimate of gross weight of an aircraft and its components.

TL504.T4 1945

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955.

MAKAROV, S. YA.

Mozhno li oblegchit' istrebitel'. (Tekhnika vozdushnogo flota, 1943, no. 3, p. 5-9, tables, diagrs.)

Title tr.: Is it possible to reduce the weight of a fighter?

TL504.T4 1943

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955.

MAKAROV, S.V., assistent

Clinical observations on the use of some therapeutic pastes in the treatment of deep caries. Vop. obshchei stom. 17:27-29 '64.

Methodology for the study of the morphological reaction of the pulp of the carious tooth to the effect of therapeutic pastes. Ibid.:35-36 (MIRA 18:11)

MAN'KOVSKAYA, N.K.; PONOMARENKO, I. Ya.; UDOVENKO, S.A.; MAKAROV, S.V.; KHLUD, M.L.

New method for separating and dividing synthetic fatty acids into fractions. Khim. i tekh. topl. i masel 9 no.6:52-57 Je'64 (MIRA 17:7)

1. UkrNIIgiproneft' i Vsesoyuznyy nauchno-issledovatel'skiy i proyektnyy institut sinteticheskikh zhirozameniteley.

MAKAROV, S.V.

Topological evaluation of the memory capacity of a multitact system.
Probl. pered. inform. 1 no.2:108-111 '65. (MIRA 18:7)

L 5055-66
ACCESSION NR: AP5024538

orthogonal-nonrepetitive forms. However, there exist difficulties connected with the chopping algorithm due to the number of ONF terms contained in a particular Boolean function. To estimate the complexity of such an algorithm the present author calculates the mathematical expectation E of the number of terms M in the ONF version of the original function. Extended calculations presented in this paper lead to the result $E(M) \approx 0.235 \cdot 2^n$

with a relative error not exceeding 0.001. The article concludes with an application of the chopping algorithm to monotonic functions. Orig. art. has: 57 formulas, 3 figures, and 2 tables.

ASSOCIATION: none

SUBMITTED: 18Jan65 ENCL: 00 SUB CODE: DP, MA

NO REF SOV: 008 OTHER: 000

Card 2/2

L 5055-66 EWT(d)/T IJP(c)

ACCESSION NR: AP5024538 UR/0378/65/000/004/0031/0037
512.932

46
B

AUTHOR: Makarov, S. V.

TITLE: Complexity estimate of the chopping algorithm

SOURCE: Kibernetika, no. 4, 1965, 31-37

TOPIC TAGS: cybernetics, finite automaton, Boolean function, algorithm, probability

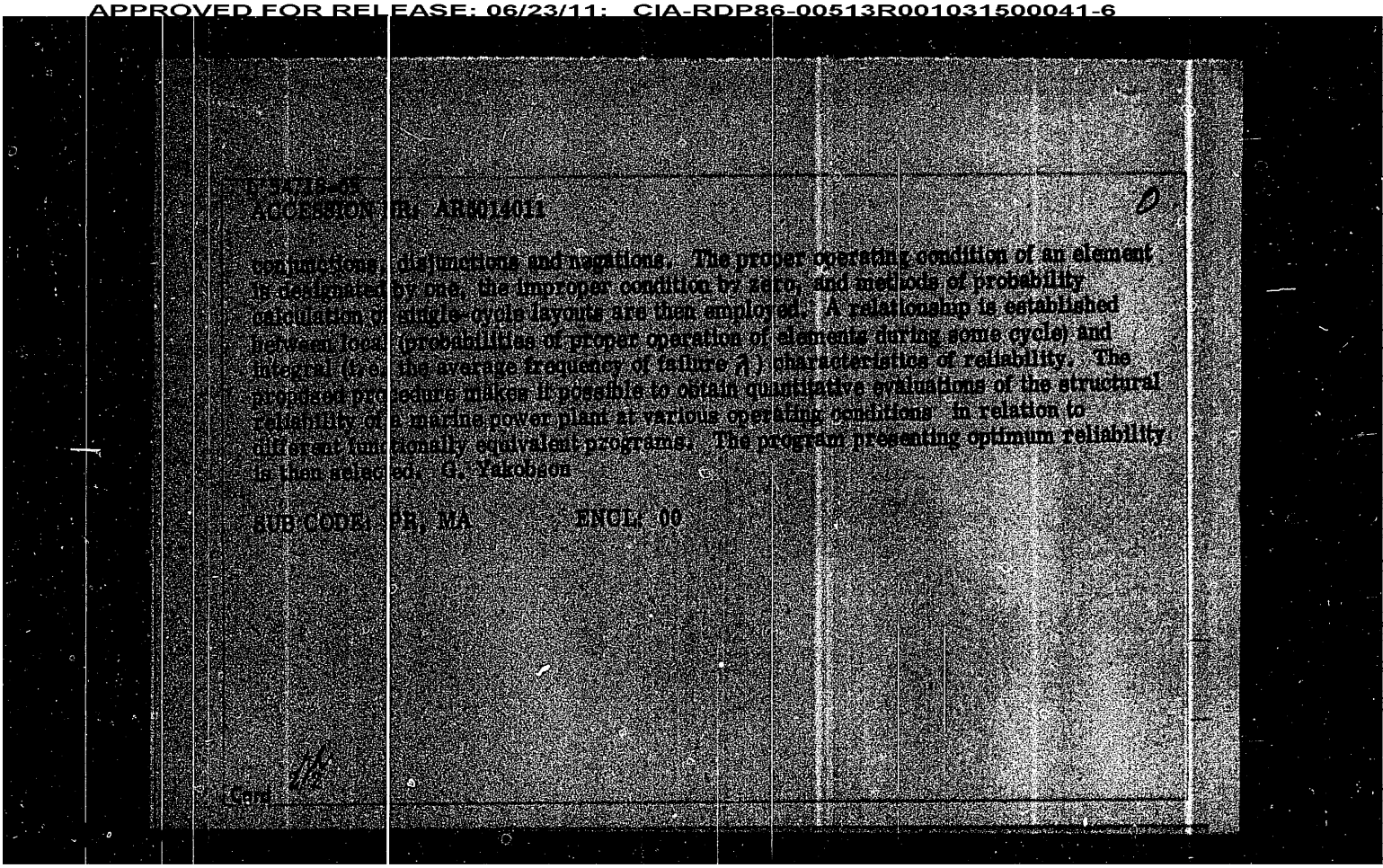
ABSTRACT: In a study of the structural reliability of finite automatons and of some other continuously acting devices the problem of finding the probability for the transformation of the Boolean function $f(X_1, \ldots, X_n)$ into unity is often encountered. Here all the arguments of the function are random quantities with a known probability distribution. For the solution of this problem the author proposed earlier the so-called "chopping algorithm" (Vychislitel'nyye sistemy, no. 4, Novosibirsk, 1962) which essentially takes the original Boolean function in its orthogonal-nonrepetitive form (ONF) and for each term of this form finds the probability of its conversion into unity. Subsequently, these separate probabilities are combined into the solution of the entire problem. The simplicity of all the necessary calculations is determined basically by the properties of the

Card 1/2

0701 0182

MAN'KOVSKAYA, N.K.; UDOVENKO, S.A.; MAKAROV, S.V.

Synthetic fatty acids obtained with the method of soap decomposition by carbonic acid. Khim. i tekh. topl. i masel 9 no.1:23-26 Ja '64. (MIRA 17:3)



L 34218-65
ACCESSION NR: AR5014011

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conjunctions, disjunctions and negations. The proper operating condition of an element is designated by one, the improper condition by zero, and methods of probability calculation of single-cycle layouts are then employed. A relationship is established between local (probabilities of proper operation of elements during some cycle) and integral (i.e. the average frequency of failure λ) characteristics of reliability. The proposed procedure makes it possible to obtain quantitative evaluations of the structural reliability of a marine power plant at various operating conditions in relation to different functionally equivalent programs. The program presenting optimum reliability is then selected. O. Yakobson

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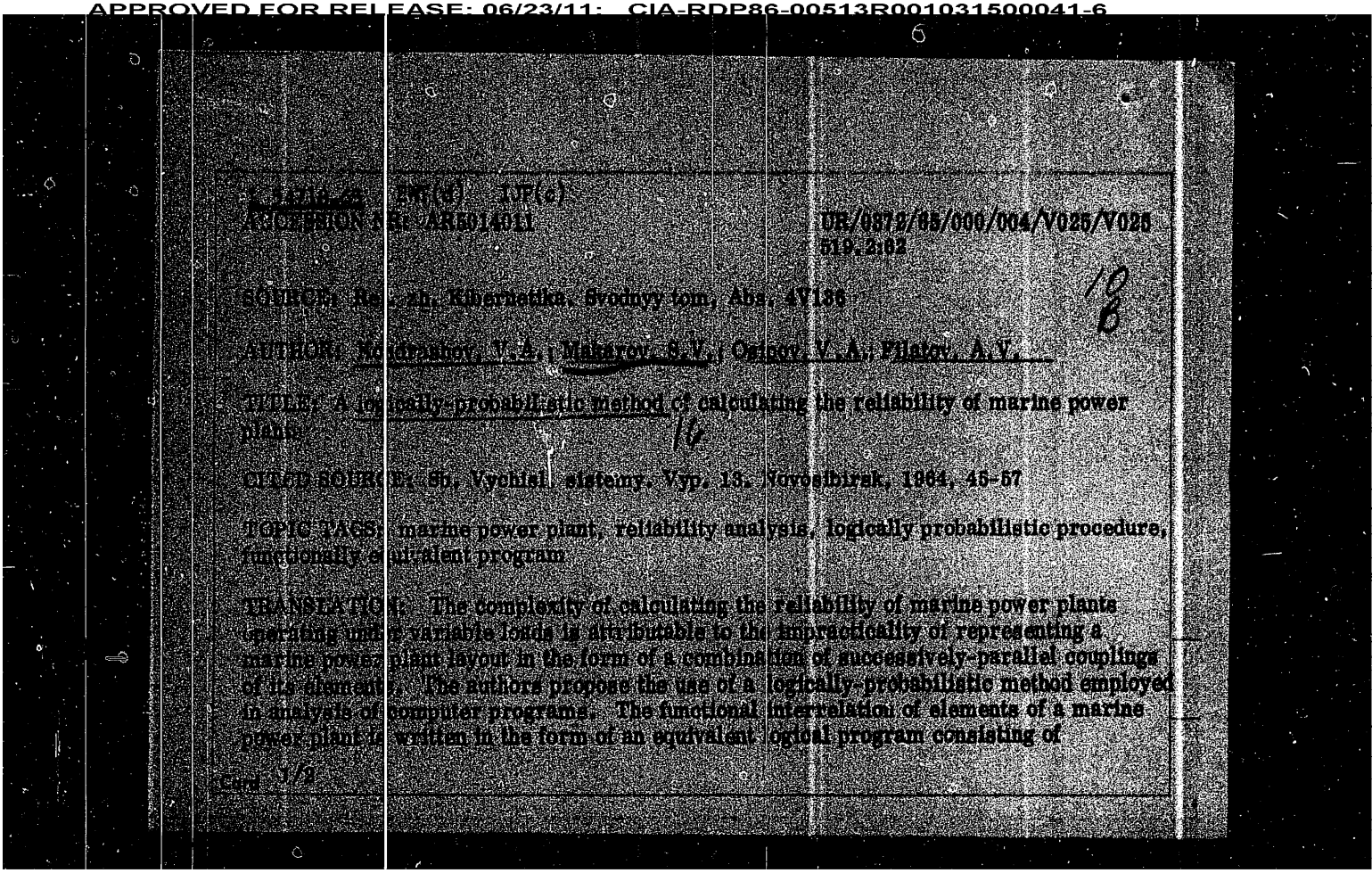

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519.2:62

SOURCE: Ref. zh. Kibernetika, Svodnyy tom, Abs. 4V136

AUTHOR: Modrzhov, V. A.; Makarov, S. V.; Osipov, V. A.; Filatov, A. Y.

TITLE: A logically-probabilistic method of calculating the reliability of marine power plants

CITED SOURCE: Sb. Vychisl. sistemy. Vyp. 13. Novosibirsk, 1964, 45-57

TOPIC TAGS: marine power plant, reliability analysis, logically probabilistic procedure, functionally equivalent program

TRANSLATION: The complexity of calculating the reliability of marine power plants operating under a variable loads is attributable to the impracticality of representing a marine power plant layout in the form of a combination of successively-parallel couplings of its elements. The authors propose the use of a logically-probabilistic method employed in analysis of computer programs. The functional interrelation of elements of a marine power plant is written in the form of an equivalent logical program consisting of

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